

Application No. 09/539,096
Amendment Dated April 5, 2006
Reply to Office Action of October 5, 2005

REMARKS/ARGUMENTS

By this Amendment, Claims 1-34 are pending, with Claims 1, 5, 9, 17, 21 and 29 independent. By this Amendment, Claims 1, 9, 10, 12, 14, 16-20, 22, 23 and 29 are amended. Reconsideration in view of the foregoing amendments and the following remarks is respectfully requested.

The amendments to the claims are made for the sole purpose of address informalities and improving the clarity of the claim, and are not required to overcome any prior art cited by the Office Action.

The amendments to Claims 1, 9, 10, 12, 14, 16-20, 22, 23 and 29, in comparison to the claims as filed with the reissue application on March 30, 2000 are shown below:

1. (Twice Amended) Skin temperature measuring apparatus comprising:
a housing;

first and second temperature sensors spaced apart in said housing but in proximity to each other and adapted for contact with generally the same area of skin for developing first and second temperature signals, respectively; and

means responsive to said first temperature signal and said second temperature signal for:

- (a) developing an indication of the temperature at the skin with which said first and said second temperature sensors are in contact; and
- (b) detecting a difference between the rate of change of said first temperature signal and the rate of change of said second temperature signal which exceeds a predetermined threshold representing a difference in the proximity of said first

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temperature sensor to the skin and the proximity of said second temperature sensor to the skin.

9. (Twice Amended) A skin temperature measuring apparatus comprising:

a housing;

at least a first and second temperature sensor spaced apart is in said housing, but in proximity to each other and adapted for contact with generally the same area of skin for developing first and second temperature signals, respectively;

a first indicator connected to one of said at least first and second temperature sensors to indicate the temperature of the skin, and

a second indicator connected to at least both of said at least first and second temperature sensors to produce an output indicating an improper sensing of the skin temperature at that same area by at least one of the at least first and second temperature sensors.

10. (Twice Amended) The skin temperature measuring apparatus of claim 9, wherein the housing is provided with a flexible substrate on which the at least first and second temperature sensors are mounted.

12. (Twice Amended) The skin temperature measuring apparatus of claim 11, wherein the housing is provided with a flexible substrate on which the at least first and second temperature sensors are mounted.

14. (Twice Amended) The skin temperature measuring apparatus of claim 13, wherein the housing is provided with a flexible substrate on which the at least first and second temperature sensors are mounted.

16. (Twice Amended) The skin temperature measuring apparatus of claim 14, wherein

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the housing is provided with a flexible substrate on which the at least first and second temperature sensors are mounted.

17. (Twice Amended) A method of producing a skin temperature comprising:

placing a housing mounted with at least two spaced apart temperature sensors adjacent the same area of skin;

providing a first indicator connected to and displaying the temperature of at least one of the at least two spaced apart temperature sensors; and

providing a second indicator connected to both the at least ~~first and second~~ two spaced apart temperature ~~sensors~~ sensors and producing an indication that the displayed temperature from the first indicator is in error.

18. (Twice Amended) The method of claim 17, wherein the second indicator indicates that one of the at least ~~first and second~~ two spaced apart temperature sensors is malfunctioning.

19. (Twice Amended) The method of claim 18, wherein a third indicator is provided that is connected to both the at least ~~first and second~~ two spaced apart temperature sensors and producing an indication that the at least two spaced apart ~~first and second~~ temperature sensors are not measuring the temperature of the skin at the same area.

20. (Twice Amended) The method of claim 17, wherein the second indicator indicates that the at least ~~first and second~~ two spaced apart temperature sensors are not measuring the temperature at the same skin area.

22. (Twice Amended) The body function measuring apparatus of claim 21, wherein the circuit detects a difference between the rate of change of ~~the~~ a first temperature signal and the rate of change of ~~the~~ a second temperature signal.

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23. (Twice Amended) The body function measuring apparatus of claim 22, wherein the circuit activates the indicator when the difference between the rate of change of the first temperature signal and the rate of change of the second temperature signal ~~exceeds~~exceeds a predetermined threshold.

29. (Twice Amended) A body function measuring apparatus comprising
a first sensor providing a first signal,
a second sensor spaced apart from the first sensor, the second sensor being positioned to lie proximate the first sensor, the second sensor providing a second signal,
a circuit coupled to the first and second sensors, the circuit comparing the rate of change of the first signal to the rate of change of the second signal, and
an indicator operatively coupled to the circuit to indicate whether the difference between the rate of change of the first signal and the rate of change of ~~he~~the second signal exceeds a threshold.

As noted above, all of the amendments were made to address informalities pointed out by the Examiner and improve the clarity of the claims. None of the amendments were made to overcome any prior art cited in the Office Action. Accordingly, support for the amended claims is found in the claims as previously or originally filed.

ALLOWABLE SUBJECT MATTER

Applicants acknowledge the Examiner's indication that Claims 3, 4, 7, 8, 10, 12, 14, 16 and 31-34 contain allowable subject matter and would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims, and upon overcoming the objections to the declaration and consent of assignee. However, Applicants respectfully submit that all of

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the pending Claims 1-34 are allowable for at least the reasons set forth below.

FORMAL MATTERS

The application stands objected to under 37 CFR §1.172(a) as lacking the written consent of all assignees owning an undivided interest in the patent. Applicants respectfully submit that the original assignee, Air-Shields, Inc. has transferred their undivided interest in the patent to Draeger Medical Infant Care, Inc. via a series of assignments/name changes from Air-Shields, Inc. to Hill-Rom Manufacturing, Inc. to Hill-Rom Services, Inc. to Draeger Medical Infant Care, Inc. These conveyances were recorded in the United States Patent and Trademark Office for U.S. Patent No. 5,732,711 at Reel/Frame: 010703/0451, 011796/0711, 012252/0469, 016902/0278 and 016216/0949. (See attached Exhibit A). In addition, Hill-Rom Air Shields, Inc. changes its name to Hill-Rom Manufacturing, Inc. by merger as recorded in the attached copy of the Certificate of Merger, filed March 27, 2000. (See attached Exhibit A). To further ensure that the PTO records are complete, Applicants will separately record the merger with the Assignment Branch. The undivided interest in the patent is transferred to Draeger Medical Infant Care, Inc., as recorded in the United States Patent and Trademark Office, with the Assignment of Assignor's Interest recorded on September 28, 2004 at Reel 015118, Frame 0976. Accordingly, the assignee providing the Consent of Assignee, dated March 30, 2000, Hill-Rom Air-Shields, Inc., is a proper assent of the assignee in compliance with 37 CFR §1.172 and 3.73. Withdrawal of the objection is respectfully requested.

The reissue oath/declaration stands objected to as defective for failing to contain a statement that all the errors which are being corrected in the reissue application up to the time of

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filing of the oath/declaration arose without any deceptive intention on the part of the Applicants. Applicants respectfully submit that the reissue declaration states that errors rendering the '711 patent wholly or partly inoperative or invalid caused the claims of such patent to be of more narrow scope than necessary to distinguish over the prior art, and that such errors arose without any deceptive intent. Such errors would include informalities in the application and the subject matter of the claims. Therefore, all errors which are being corrected in the reissue application up to the time of filing of the declaration arose without any deceptive intent on the part of the Applicant, as stated in the declaration. Moreover, the addresses provided for each inventor in the declaration indicates the residence and mailing address for each inventor.

Should a supplemental reissue oath/declaration under 37 CFR §1.175 still be required, Applicants request the Offices' permission to file such a reissue declaration at a later time and before this reissue application is allowed.

Claims 1-34 stand rejected as being based upon a defective reissue declaration under 25 U.S.C. §251. As noted above, Applicants will file a supplemental declaration to overcome the Examiner's rejection of the claims as being based upon a defective reissue oath at a later time and before allowance of all of the Claims.

SPECIFICATION

The disclosure stands rejected to because of informalities. This Amendment amends Pages 1 and 5 of the Specification as set forth by the Examiner to obviate the objection. Moreover, if the Examiner requests, Applicants will further amend the Specification if needed to clarify the amendments to the Specification filed on March 30, 2000. However, it is the

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Applicants' understanding that the amendments to the Specification filed on March 30, 2000 were accepted as they are believed to have conformed to the reissue practice at that time. As such, Applicants do not wish to re-amend the Specification as previously amended as it may cause further confusion.

Accordingly, Applicants respectfully submit that the disclosure as amended obviates the Examiner's objection. Withdrawal of the objection to the Specification is respectfully requested.

CLAIM OBJECTIONS

Claims 1, 9, 10, 12, 14, 16, 17, 19, 20, 23 and 29 stand object to because of informalities. By this Amendment, the above-listed claims are amended as suggested by the Examiner to obviate the objections. Withdrawal of the objections to the claims is respectfully requested.

35 U.S.C. §112 REJECTIONS

Claims 22 and 23 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. This rejection is respectfully traversed for at least the reasons set forth below.

This Amendment amends Claim 22 to provide proper anteceded basis for the limitations noted by the Examiner in Claims 22 and 23, which depend from Claim 22. Withdrawal of the rejections under 35 U.S.C. §112 is respectfully requested.

35 U.S.C. §102 REJECTIONS

Claims 1, 2, 5, 6, 9, 11, 13, 15, and 21-30 stand rejected under 35 U.S.C. §102(b) by Koch (U.S. Patent No. 5,385,529). This rejection is respectfully traversed for at least the reasons set forth below.

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The Examiner asserts that Koch teaches a housing and first and second temperature sensors received by and spaced apart in the housing that generate first and second temperature signals, a circuit coupled to the first and second sensor that compares the temperature signals, a plurality of indicators including a first indicator capable of providing an indication of the temperature or rate of change in temperature sensed by the first and second sensors, and a second indicator capable of providing an indication of the difference between the sensed signals. However, Koch does not disclose detecting a difference between the rate of change of the first temperature signal and the rate of change of the second temperature signal which exceeds a predetermined threshold representing a difference in the proximity of the first temperature sensor to the skin and the proximity of the second temperature sensor to the skin, as recited in independent Claims 1, 5, 9, 21 and 29.

In Koch, an inquiry is made as to how great the rate of increase of the actual value ΔT is. See column 8, lines 1-9. However, Koch does not disclose separately detecting a difference between the rate of change of the first temperature signal and the rate of change of the second temperature signal. Moreover, Koch does not discuss the proximity of the first temperature sensor to the skin or the proximity of the second temperature sensor to the skin, and therefore also does not disclose this feature recited in the claims.

Accordingly, Koch does not disclose at least the above features as recited in independent Claims 1, 5, 9, 21 and 29. Thus, Applicants respectfully submit that Koch also does not disclose the subject matter of Claims 2, 6, 11, 13, 15, 22-28 and 30, which each depend from one of the independent Claims 1, 5, 9, 21 and 29. Withdrawal of the rejection of the claims under 35 U.S.C. §102(b) is respectfully requested.

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Claims 17-30

Claims 17-30 stand rejection under 35 U.S.C. §102(b) over Stillman, et al. (U.S. Patent No. 4,586,149). This rejection is respectfully traversed for at least the reasons set forth below.

The Examiner asserts that Stillman teaches a housing mounted by first and second temperature sensors spaced apart in the housing that generate first and second temperature signals. A circuit is coupled to the first sensor and the second sensor and processes and compares the temperature signals. A plurality of indicators are provided at a computer that communicates with the circuit with the first indicator capable of providing an indication of the temperature or rate of change in temperature and the second indicator capable of providing an error signal when the difference between the sensed signals exceed a predetermined threshold. However, Stillman does not disclose at least the following features:

- (a) a method of producing a skin temperature comprising placing at least two spaced apart temperature sensors adjacent the same area of skin, as recited in independent Claim 17;
- (b) a second indicator that indicates that the at least two spaced apart temperature sensors are not measuring the temperature of the same skin area, as recited in Claim 20;
- (c) a body function measuring apparatus comprising first and second sensors positioned to detect the body function as recited in independent Claim 21; and
- (d) a body function apparatus comprising a circuit comparing the rate of change of the first signal to the rate of change of the second signal, as recited in independent Claim 29.

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Stillman discloses a temperature control system for a cutaneous gas monitor. The system protects a patient from being burned by gas sensors which have begun to operate at excessive temperatures. The system includes temperature monitoring circuits that measure the temperature of the gases, but not the temperature of the patient's skin. Therefore, the system in Stillman does not disclose measuring the temperature adjacent the same area of skin or detecting or measuring a body function as recited in Claims 17, 20, 21 and 29. Accordingly, Stillman does not anticipate the subject matter of Claims 17, 20, 21, 29 or of Claims 18-20, 22-28 and 30, which depend from one of the independent Claims 17, 21 and 29. Withdrawal of the rejection of the claims under 35 U.S.C. §102(b) is respectfully requested.

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CONCLUSION

For at least the reasons set forth above, it is respectfully submitted that the above-identified application is in condition for allowance. Should the Examiner believe that anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

CAESAR, RIVISE, BERNSTEIN,
COHEN & POKOTILOW, LTD.

April 5, 2006

Please charge or credit our
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consideration of this submission.

By



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